



# **Drug Demand Reduction**

## **Quarterly Newsletter**

### **The ABCs of BAC**

**April 2015**



**What is "BAC"? The amount of alcohol in a person's body is measured by the weight of the alcohol in a certain volume of blood. This is called the blood alcohol concentration, or "BAC." Alcohol is absorbed directly through the walls of the stomach and the small intestine, goes into the bloodstream, and travels throughout the body and to the brain. Alcohol is quickly absorbed and can be measured within 30 to 70 minutes after a person has had a drink.**

**Does the type of alcohol I drink affect my BAC? No! A drink is a drink. A typical drink equals about half an ounce of alcohol found in: one shot of distilled spirits, or one 5-ounce glass of wine, or one 12-ounce beer.**

**What affects my BAC? How fast a person's BAC rises varies with a number of factors:**

- **The number of drinks. The more you drink, the higher the BAC**
- **How fast you drink. When alcohol is consumed quickly, you will reach a higher BAC than when it is consumed over a longer period of time**
- **Your gender. Women generally have less water and more body fat per pound of body weight than men. Alcohol does not go into fat cells as easily as other cells, so more alcohol remains in the blood of women**
- **Your weight. The more you weigh, the more water is present in your body. This water dilutes the alcohol and lowers the BAC**
- **Food in your stomach. Absorption will be slowed if you've had something to eat**

**What about other medications or drugs? Medication or drugs will not change your BAC. However, if you drink alcohol while taking certain medications, you may feel and be more impaired, which can affect your ability to perform driving related tasks.**

**When am I impaired? Because of the multitude of factors that affect BAC, it is very difficult to assess your own BAC or impairment. Though small amounts of alcohol affect one's brain and the ability to drive, people often swear they are "fine" after several drinks, but in fact, the failure to recognize alcohol impairment is often a symptom of impairment. A person will likely be too impaired to drive before looking or maybe even feeling "drunk."**

**How will I know I'm impaired, and why should I care? Alcohol steadily decreases a person's ability to drive a motor vehicle safely. The more you drink, the greater the effect. As with BAC, the signs of impairment differ with the individual. In single-vehicle crashes, the relative risk of a driver with BAC between .08 and .10 is at least 11 times greater than for drivers with a BAC of zero, and 52 times greater for young males. Further, many studies have shown that even small amounts of alcohol can impair a person's ability to drive.**

Every State has passed a law making it illegal to drive with a BAC of .08 or higher. A driver also can be arrested with a BAC below .08 when a law enforcement officer has probable cause, based on the driver's behavior.

The below chart contains some of the more common symptoms people exhibit at various BAC levels, and the probable effects on driving ability:

BAC	Typical Effects	Predictable Effects on Driving
.02%	Some loss of judgment Relaxation Slight body warmth Altered mood	Decline in visual function (rapid tracking of a moving target) Decline in ability to perform two tasks at the same time (divided attention)
.05%	Exaggerated behavior May have loss of small-muscle control (e.g., focusing your eyes) Impaired judgment Usually good feeling Lowered alertness Release of inhibition	Reduced coordination Reduced ability to track moving objects Difficulty steering Reduced response to emergency driving situations
.08%	Muscle coordination becomes poor (e.g., balance, speech, vision, reaction time, and hearing) Harder to detect danger Judgment, self-control, reasoning, and Memory are impaired	Concentration Short-term memory loss Speed control Reduced information processing capability (e.g., signal detection, visual search) Impaired perception
.10%	Clear deterioration of reaction time and control Slurred speech, poor coordination, and	Reduced ability to maintain lane position and brake appropriately
.15%	Far less muscle control than normal Vomiting may occur (unless this level is reached slowly or a person has developed a tolerance for alcohol) Major loss of balance	Substantial impairment in vehicle control, attention to driving task, and in necessary visual and auditory information processing

What can I do to stay safe when I plan on drinking? If you plan on drinking, plan not to drive. You should always:

- Choose a non-drinking friend as a designated driver, or
- Ask ahead of time if you can stay over at your host's house or
- Take a taxi or AADD Van, and
- Always wear your seat belt— it's your best defense against impaired drivers